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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,486	06/15/2006	**Philippe Gentric**	FR030155	7269

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EXAMINER	
BLACK, LINH	

ART UNIT	PAPER NUMBER
2159	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No.	Applicant(s)	
	10/596,486	GENTRIC, PHILIPPE	
	Examiner	Art Unit	
	LINH BLACK	2159	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 March 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 5-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 5-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 June 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/3/10 has been entered. Claims 1-3, 5-20 are pending in the application. Claims 1, 5, 8 and 11 are independent claims. Claims 12-20 are new claims.

Drawings

The drawings are objected to under 37 CFR 1.84(o) because they fail to show necessary textual labels of features in Figs. 1-8 as described in the specification. For example, placing the label, "client device" with element 14 of fig. 1, or "player" with element 16 or "processing unit" with element 18, would give the viewer a clear understanding of the drawing. Please provide all textual labels for elements of figures 1-8. Also, any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kalra et al. (US 6490627) in view of Roelens (US 20050015794).

As per claim 1, Kalra discloses

method of transmitting a multimedia content from a server to a client device through a distribution network upon request of said client device – figs. 12-14: item 400 stream server, items 500s client computers; col. 2, lines 8-17 (transmitting base streams and a desired number of additive streams of digital data from a stream server to a client computer based on a profile obtained from the client computer).

said method using a plurality of groups of <u>at least one</u> set of files, each group being associated with an encoded multimedia content (col. 7, lines 1-29; col. 18, lines 32-45; fig. 4, video sequence: pictures: partition picture into slices (a slice

can have one or more macro-blocks. The slices is equivalent to at least one set of files because each slice is equivalent to a file.)

said encoded multimedia contents being obtained by encoding said multimedia content with various encoder characteristics (col. 23, lines 12-30: before describing how graphic adaptive streams are encoded and transmitted to a client computer from a server, a dictionary /look-up table, is used both at the server and client, stores information about different characteristics such as geometry, material, texture, and scene graph nodes, each of which have their own particular identifier, data pointer, priority and other characteristic specific attributes…); fig. 2b: item 20 stream management module with data streams of animation 3D & video, audio: classical, rock & roll, easy listening, text: English, French, German…to multimedia devices).

said groups being obtained by slicing said encoded multimedia contents in multiple sets of slicing positions (col. 5, lines 4-55: stream 24 is decoded into video sequence 26, and audio sequence 27. With respect to the video sequence, each of the "pictures" in the video sequence can be formatted in a variety of different ways, depending upon which video format is used, each of "pictures" could be "I picture", "P-picture" or "B-picture", such a picture will be partitioned into a plurality of slices…; the slice information for the first slice of that picture is stored on the server…after the information for that slice is stored,

information relating to the second slice and then subsequent n slices of that picture are stored...until data for an entire picture is stored; col. 6, lines 36-65)

each file containing a slice of an encoded multimedia content – figs. 5-8b (sequence start, group start, picture start, slice start...); col. 5, line 36 to col. 6, line 59 (...any desired subset of the additive adaptive streams can be transmitted from a server to an end user and subsequently be decoded to reconstruct the video sequence at a resolution that corresponds to the number of additive adaptive streams...After the information for that slice is stored, information relating to the second slice and then subsequent n slices of that picture are stored...)

said method comprising: a step of selecting a group from said plurality of groups, a step of selecting a slice from said slices; a step of downloading, from said server to said client device – fig. 4: video sequence: pictures: partition picture into slices: slice 28-1, 28-2, 28-3...28-N (a slice can have one or more macro-blocks); figs, 12, 14: stream server, http server, client computers, stream client; col. 4, lines 14-59 (the stream management will obtain a desired resolution profile from a multimedia device and based on the profile, select the appropriate base and additive streams from the available adaptive streams then transmits/downloads these selected streams to the multimedia device, where they are decoded and then displayed for the user to experience).

the file that contains the selected slice and belongs to the selected group using a communication unit of the client device, said steps being executed at least once – col. 15, line 57 to col. 16, line 29 (once a user has determined that he desires to view a video sequence using adaptive streams, an adaptive streams program resident within the client computer begins makes a determination of the user profile. This includes a step in which CPU constraint is determined); col. 18, lines 32-65 (in the index file is stored drop frame codes for each adaptive stream, down to the slice level, as well as pointers to the location for each slice of the data for the appropriate data that will be transmitted…at the end of a group code sequence, whether a profile update has occurred is checked in step 554e. If a profile update has occurred, then a new profile is received. If there is not a new profile, the a new group code, and corresponding pictures, each with corresponding adaptive streams is transmitted, which operation continues until the end of a sequence).

Kalra discloses various encoder characteristics (col. 4, lines 32-46: allows for independent operation of encoders and adaptive stream processors with respect to the adaptive servers as well as independent operation of decoders on the client computer; col. 8, lines 32-59: the output from each of the encoders are then input to respective spatial scaling transcoders…audio is also transmitted by the stream management module based upon profile characteristics selected by the user such as whether mono or stereo...; col. 22, lines 19-63). Kalra also discloses in fig. 4, video sequence: pictures: partition picture into slices (a slice can have one or more macro-blocks); figs. 5-8b (sequence start, group start,

picture start, slice start…); col. 4, lines 14-59 (the stream management module will obtain a desired resolution profile from a multimedia device and based upon the profile, select the appropriate base and additive streams from the available adaptive digital data streams then transmits these selected streams to the multimedia device where they are decoded and displayed for the user to experience); col. 6, lines 10-65. However, Kalra seems not explicitly disclose slices that can be decoded independently of each other; each set of the slicing positions being shifted in time compared with other sets of slicing positions.

Roelens discloses forming slices that can be decoded independently of each other (pars. 95, 106, 181: identifying a RAP of a decodable group of frames and of determining at least for each of the frames of the group, information including the address of the frame in the buffer memory, a presentation time stamp…In the case of a video frame coded according to the MPEG standard, this information further comprises the type I, P, or B of the image).

each set of the slicing positions being shifted in time compared with other sets of slicing positions (pars. 11, 48). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Kalra's teaching with Roelens' teaching in order to allow sufficient display of multimedia contents to users.

As per claim 2, Kalra discloses

calculating an estimation of the current transmission rate of the distribution network, wherein said group selection step takes said estimation into account –

fig. 9a: items 104-124c; col. 7, line 41 to col. 8, line 65; col. 10, line 46 to col. 11, line 35.

As per claim 3, Kalra discloses

transmitting a client preference relating to said encoder characteristics from said client device to said server, and wherein said group selection step takes said client preference into account – col. 16, lines 10-60 (a connection is establish between the adaptive stream server and the particular client computer. Thereafter the profile is sent and after the user makes a selection of the particular sequence that he desires to see/hear and adaptive streams are transmitted in accordance with the user profile thereafter).

As per claim 5, Kalra discloses

A server having access to a plurality of groups of at least one set of files, each group being associated with an encoded multimedia content, said encoded multimedia contents being obtained by encoding a multimedia content with various encoder *characteristics* – col. 2, lines 9-50 (transmitting base streams and a desired number of additive streams of digital data from a stream server to a client computer based on a profile obtained from the client computer… encoding, storing, transmitting and decoding multimedia information in the form of scalable, streamed digital data…each different client computer may access different stream combinations according to a profile associated with each different client computer); col. 15, line 45 to col. 16, line 60.

said groups being obtained by slicing said encoded multimedia contents in multiple sets of slicing positions - figs. 4-8b (sequence start, group start, picture start, slice start…Figure 4 shows each picture can be partitioned into different slices/files. Thus, multiple pictures would be partitioned into multiple sets of slicing positions/information); col. 4, lines 14-59; col. 5, line 36 to col. 6, line 59 (…any desired subset of the additive adaptive streams can be transmitted from a server to an end user and subsequently be decoded to reconstruct the video sequence at a resolution that corresponds to the number of additive adaptive streams...After the information for that slice is stored, information relating to the second slice and then subsequent n slices of that picture are stored...)
each file containing a slice of an encoded multimedia content – col. 18, line 32 to col. 19, line 41.
… selecting a slice from said slices; …download the file that contains the selected slice and belongs to a selected group - fig. 4: video sequence: pictures: partition picture into slices: slice 28-1, 28-2, 28-3…28-N (a slice can have one or more macro-blocks); figs, 12, 14: stream server, http server, client computers, stream client; col. 4, lines 14-59 (the stream management will obtain a desired resolution profile from a multimedia device and based on the profile, select the appropriate base and additive streams from the available adaptive streams then transmits/downloads these selected streams to the multimedia device, where they are decoded and then displayed for the user to experience).

wherein the communication unit is activated at least once upon reception of a request directed to said multimedia content from said client device – col. 15, line 57 to col. 16, line 29 (once a user has determined that he desires to view a video sequence using adaptive streams, an adaptive streams program resident within the client computer begins makes a determination of the user profile. This includes a step in which CPU constraint is determined); col. 18, lines 32-65 (in the index file is stored drop frame codes for each adaptive stream, down to the slice level, as well as pointers to the location for each slice of the data for the appropriate data that will be transmitted…at the end of a group code sequence, whether a profile update has occurred is checked in step 554e. If a profile update has occurred, then a new profile is received. If there is not a new profile, the a new group code, and corresponding pictures, each with corresponding adaptive streams is transmitted, which operation continues until the end of a sequence).

Kalra discloses various encoder characteristics (col. 4, lines 32-46: allows for independent operation of encoders and adaptive stream processors with respect to the adaptive servers as well as independent operation of decoders on the client computer; col. 8, lines 32-59: the output from each of the encoders are then input to respective spatial scaling transcoders…audio is also transmitted by the stream management module based upon profile characteristics selected by the user such as whether mono or stereo...; col. 22, lines 19-63). Kalra also discloses in fig. 4, video sequence: pictures: partition picture into slices (a slice can have one or more macro-blocks); figs. 5-8b (sequence start, group start,

picture start, slice start…); col. 4, lines 14-59 (the stream management module will obtain a desired resolution profile from a multimedia device and based upon the profile, select the appropriate base and additive streams from the available adaptive digital data streams then transmits these selected streams to the multimedia device where they are decoded and displayed for the user to experience); col. 6, lines 10-65. However, Kalra seems not explicitly disclose slices that can be decoded independently of each other; each set of the slicing positions being shifted in time compared with other sets of slicing positions.

Roelens discloses forming slices that can be decoded independently of each other (pars. 95, 106, 181: identifying a RAP of a decodable group of frames and of determining at least for each of the frames of the group, information including the address of the frame in the buffer memory, a presentation time stamp…In the case of a video frame coded according to the MPEG standard, this information further comprises the type I, P, or B of the image).

each set of the slicing positions being shifted in time compared with other sets of slicing positions (pars. 11, 48). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Kalra's teaching with Roelens' teaching in order to allow sufficient display of multimedia contents to users.

As per claim 6, Kalra discloses

receive information relating to the current transmission rate of the distribution network from said client device, …to select said group on the basis of said

information – fig. 9a: items 104-124c; col. 7, line 41 to col. 8, line 65; col. 10, line 46 to col. 11, line 35.

As per claim 7, Kalra discloses

receive client preference data, and …select said group on the basis of said client preference data – col. 16, lines 10-60 (a connection is establish between the adaptive stream server and the particular client computer. Thereafter the profile is sent and after the user makes a selection of the particular sequence that he desires to see/hear and adaptive streams are transmitted in accordance with the user profile thereafter).

As per claim 8, Kalra discloses

…select a group of at least one set of files from a plurality of groups, each group being associated with an encoded multimedia content, said encoded multimedia contents being obtained by encoding a multimedia content with various encoder characteristics – fig. 8a: a slice of five macro-blocks of MPEG data, with each of these macro-blocks containing six blocks...within the first macro-block, the blocks labeled with numbers 1-6 that correspond to the sequence in which data corresponding to these blocks is obtained; col. 23, lines 12-30 (before describing how graphic adaptive streams are encoded and transmitted to a client computer from a server, a dictionary /look-up table, is used both at the server and client, stores information about different characteristics such as geometry, material, texture, and scene graph nodes, each of which have their own particular

identifier, data pointer, priority and other characteristic specific attributes…); fig. 2b: item 20 stream management module with data streams of animation 3D & video, audio: classical, rock & roll, easy listening, text: English, French, German…to multimedia devices.

said groups being obtained by slicing said encoded multimedia contents in multiple sets of slicing positions, each file containing a slice of an encoded multimedia content - figs. 4-8b (sequence start, group start, picture start, slice start… Figure 4 shows each picture can be partitioned into different slices/files. Thus, multiple pictures would be partitioned into multiple sets of slicing positions/information); col. 5, line 36 to col. 6, line 59 (…any desired subset of the additive adaptive streams can be transmitted from a server to an end user and subsequently be decoded to reconstruct the video sequence at a resolution that corresponds to the number of additive adaptive streams...After the information for that slice is stored, information relating to the second slice and then subsequent n slices of that picture are stored...)

…send at least one request to said server, said request being directed to said multimedia content and comprising an indication of the selected group – col. 4, lines 14-59 (the stream management will obtain a desired resolution profile from a multimedia device and based on the profile, select the appropriate base and additive streams from the available adaptive streams then transmits/downloads these selected streams to the multimedia device, where they are decoded and

then displayed for the user to experience); col. 18, lines 32-65 (in the index file is stored drop frame codes for each adaptive stream, down to the slice level, as well as pointers to the location for each slice of the data for the appropriate data that will be transmitted…at the end of a group code sequence, whether a profile update has occurred is checked in step 554e. If a profile update has occurred, then a new profile is received. If there is not a new profile, the a new group code, and corresponding pictures, each with corresponding adaptive streams is transmitted, which operation continues until the end of a sequence); col. 24, lines 10-50.

Kalra discloses various encoder characteristics (col. 4, lines 32-46: allows for independent operation of encoders and adaptive stream processors with respect to the adaptive servers as well as independent operation of decoders on the client computer; col. 8, lines 32-59: the output from each of the encoders are then input to respective spatial scaling transcoders…audio is also transmitted by the stream management module based upon profile characteristics selected by the user such as whether mono or stereo...; col. 22, lines 19-63). Kalra also discloses in fig. 4, video sequence: pictures: partition picture into slices (a slice can have one or more macro-blocks); figs. 5-8b (sequence start, group start, picture start, slice start…); col. 4, lines 14-59 (the stream management module will obtain a desired resolution profile from a multimedia device and based upon the profile, select the appropriate base and additive streams from the available adaptive digital data streams then transmits these selected streams to the multimedia device where they are decoded and displayed for the user to

experience); col. 6, lines 10-65. However, Kalra seems not explicitly disclose slices that can be decoded independently of each other; each set of the slicing positions being shifted in time compared with other sets of slicing positions.

Roelens discloses forming slices that can be decoded independently of each other (pars. 95, 106, 181: identifying a RAP of a decodable group of frames and of determining at least for each of the frames of the group, information including the address of the frame in the buffer memory, a presentation time stamp…In the case of a video frame coded according to the MPEG standard, this information further comprises the type I, P, or B of the image).

each set of the slicing positions being shifted in time compared with other sets of slicing positions (pars. 11, 48). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Kalra's teaching with Roelens' teaching in order to allow sufficient display of multimedia contents to users.

As per claim 9, Kalra discloses

calculate an estimation of the current transmission rate of said distribution network, and to take said estimation into account of selecting said group – fig. 9a: items 104-124c; col. 7, line 41 to col. 8, line 65; col. 10, line 46 to col. 11, line 35; col. 22, lines 23-41.

As per claim 10, Kalra discloses

get a client preference, and … take said client preference into account of selecting said group – col. 16, lines 10-60 (a connection is establish between the adaptive stream server and the particular client computer. Thereafter the profile is sent and after the user makes a selection of the particular sequence that he desires to see/hear and adaptive streams are transmitted in accordance with the user profile thereafter); col. 22, lines 23-41.

As per claim 11, Kalra discloses

a plurality of encoders with various encoder characteristics for encoding a multimedia content, thereby generating a plurality of encoded multimedia contents - col. 4, lines 32-46 (allows for independent operation of encoders and adaptive stream processors with respect to the adaptive servers as well as independent operation of decoders on the client computer); col. 8, lines 32-59 (the output from each of the encoders are then input to respective spatial scaling transcoders…audio is also transmitted by the stream management module based upon profile characteristics selected by the user such as whether mono or stereo...); col. 22, lines 19-63.

a plurality of slicers for slicing said encoded multimedia contents in multiple sets of slicing positions forming slices that can be decoded independently of each other, and for enclosing each slice of an encoded multimedia content in a file, thereby generating a plurality of groups of at least one set of files – fig. 4 video sequence: pictures: partition picture into slices (a slice can have one or more macro-blocks); figs. 4-8b (sequence start, group start, picture start, slice start…

Figure 4 shows each picture can be partitioned into different slices/files. Thus, multiple pictures would be partitioned into multiple sets of slicing positions/information); col. 4, lines 14-59 (the stream management module will obtain a desired resolution profile from a multimedia device and based upon the profile, select the appropriate base and additive streams from the available adaptive digital data streams then transmits these selected streams to the multimedia device where they are decoded and displayed for the user to experience); col. 6, lines 10-65.

each group being associated with an encoded multimedia content, a distribution network - col. 2, lines 9-50 (transmitting base streams and a desired number of additive streams of digital data from a stream server to a client computer based on a profile obtained from the client computer... encoding, storing, transmitting and decoding multimedia information in the form of scalable, streamed digital data...each different client computer may access different stream combinations according to a profile associated with each different client computer); col. 15, line 45 to col. 16, line 60.

a client device connected to a server through said distribution network - figs. 12-14: item 400 stream server, items 500s client computers; col. 2, lines 8-17 (transmitting base streams and a desired number of additive streams of digital data from a stream server to a client computer based on a profile obtained from the client computer).

...send at least one request to said server, said request being directed to said multimedia content - col. 4, lines 14-59 (the stream management will obtain a desired resolution profile from a multimedia device and based on the profile, select the appropriate base and additive streams from the available adaptive streams then transmits/downloads these selected streams to the multimedia device, where they are decoded and then displayed for the user to experience); col. 18, lines 32-65 (in the index file is stored drop frame codes for each adaptive stream, down to the slice level, as well as pointers to the location for each slice of the data for the appropriate data that will be transmitted...at the end of a group code sequence, whether a profile update has occurred is checked in step 554e. If a profile update has occurred, then a new profile is received. If there is not a new profile, the a new group code, and corresponding pictures, each with corresponding adaptive streams is transmitted, which operation continues until the end of a sequence); col. 24, lines 10-50.

a server having access to said plurality of groups - col. 2, lines 9-50 (transmitting base streams and a desired number of additive streams of digital data from a stream server to a client computer based on a profile obtained from the client computer... encoding, storing, transmitting and decoding multimedia information in the form of scalable, streamed digital data...each different client computer may access different stream combinations according to a profile associated with each different client computer); col. 15, line 45 to col. 16, line 60.

...select a slice from said slices; b)...download the file that contains the selected slice and belongs to a selected group – fig. 4: video sequence: pictures: partition picture into slices: slice 28-1, 28-2, 28-3...28-N (a slice can have one or more macro-blocks); figs, 12, 14: stream server, http server, client computers, stream client; col. 4, lines 14-59 (the stream management will obtain a desired resolution profile from a multimedia device and based on the profile, select the appropriate base and additive streams from the available adaptive streams then transmits/downloads these selected streams to the multimedia device, where they are decoded and then displayed for the user to experience).

wherein the second communication unit is activated at least once upon reception of a request directed to said multimedia content from said client device - col. 15, line 57 to col. 16, line 29 (once a user has determined that he desires to view a video sequence using adaptive streams, an adaptive streams program resident within the client computer begins makes a determination of the user profile. This includes a step in which CPU constraint is determined); col. 18, lines 32-65 (in the index file is stored drop frame codes for each adaptive stream, down to the slice level, as well as pointers to the location for each slice of the data for the appropriate data that will be transmitted...at the end of a group code sequence, whether a profile update has occurred is checked in step 554e. If a profile update has occurred, then a new profile is received. If there is not a new profile, the a new group code, and corresponding pictures, each with corresponding

adaptive streams is transmitted, which operation continues until the end of a sequence).

Roelens discloses forming slices that can be decoded independently of each other (pars. 95, 106, 181: identifying a RAP of a decodable group of frames and of determining at least for each of the frames of the group, information including the address of the frame in the buffer memory, a presentation time stamp…In the case of a video frame coded according to the MPEG standard, this information further comprises the type I, P, or B of the image).

each set of the slicing positions being shifted in time compared with other sets of slicing positions (pars. 11, 48). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Kalra's teaching with Roelens' teaching in order to allow sufficient display of multimedia contents to users.

As per claims 12 and 15, Kalra discloses

selecting a most recent slice or a closest future slice to ensure continuity in transmitted multimedia content – fig. 7a: sequence start, picture start, next picture pointer etc…; col. 6, lines 17-65 (associated with each picture start code is picture header information including a next picture pointer…so that any desired subset of the additive adaptive streams can be transmitted from a server to an end user and subsequently be decoded to reconstruct the video sequence at a

resolution that corresponds to the number of streams that have been transmitted); col. 18, lines 32-45.

As per claims 13-14, Kalra discloses

comparing the time of arrival of the request of said client device with slicing positions of a single set of slices; determining the most recent slice and/or the closest future slice from the single set of slices based on the comparing – col. 15, line 57 to col. 16, line 29.

As per claim 16, Kalra discloses

wherein file names of the at least one set of files are re-used on a regular basis (figure 23 discloses while drawing current frame, accumulate visibility and performance statistics, compute the old information that is not needed any more, stop the undesired data, then merge any data received from server into render data; col. 25, lines 8-23. Thus, the addresses/identifiers would be reused)

As per claims 17-18, Kalra discloses multiple frames (figure 9c: I frame, P frame, B frame etc.). Partitioning of pictures into slices –figure 4). However, Kalra seems not disclose choosing the slicing positions such that each of the slices starts with a random access point, wherein the random access points are I-

frames of the multimedia content such that the first frame of each of the slices is an I-frame.

Roelens discloses forming slices that can be decoded independently of each other (pars. 95, 106, 181: identifying a RAP of a decodable group of frames and of determining at least for each of the frames of the group, information including the address of the frame in the buffer memory, a presentation time stamp…In the case of a video frame coded according to the MPEG standard, this information further comprises the type I, P, or B of the image). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Kalra's teaching with Roelens' teaching in order to allow sufficient display of multimedia contents to users.

As per claim 19, Kalra discloses

wherein two different files correspond to the same multimedia content (figure 4 where a video sequence is partitioned into multiple slices/files. Thus, said slices/files contain the same video sequence).

As per claim 20, Kalra discloses

switching from one group associated with first encoder characteristics to another group associated with second encoder characteristics to allow adaptation to a current transmission rate of the distribution network and/or to client preferences

received from the client device (figure 4: different frame rates; col. 8, lines 20-32; col. 11, lines 20-35: frames are selected at a rate that corresponds to the frame rate within each of the sub-bands that is used in determining of the drop frame code; col. 4, lines 39-45: virtual channels allows for INDEPENDENT operation of encoders and adaptive stream processors as described hereinafter with respect to the adaptive servers, as well as independent operation of decoders on the client computer").

Response to Arguments

Applicant's arguments with respect to claims 1-3, 5-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINH BLACK whose telephone number is 571-272-4106. The examiner can normally be reached on Mon.-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trujillo can be reached on 571-272-3677. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James Trujillo/
Supervisory Patent Examiner, Art Unit 2159

LINH BLACK
Examiner
Art Unit 2159